



EXECUTIVE COMPUTING

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ARC squeezes, packs, crunches computer files

Want to save money when sending computer files over telephone lines? An ingenious program is available that greatly reduces the size of your files, resulting in big savings in telephone charges.

Called ARC, the program uses several techniques to actually shrink the physical size of files without altering their contents. It uses complicated mathematical formulas to perform actions called repeated-character compression, Huffman squeezing, and Dynamic Lempel-Zev compression (nicknamed "packing," "squeezing" and "crunching").

Designed for the IBM-PC and compatible computers, the program lets you store any file or group of files on your hard disk or floppy disks in "archive form." In fact, it originally was developed to store unused files in less space, thus allowing "archived" data to occupy less space on your disks. If you have a lot of large files that are infrequently used, it makes sense to store them in this way.

Results amazing

I tested the program, and was pleasantly surprised with the space savings achieved:

✓ When compressed with ARC, my entire subdirectory of Word Perfect files (both programs and documents, 23 files altogether) was reduced from 1,276 Kilobytes (K) to 886K — for a space savings of 31 percent.

✓ When just the main Word Perfect program file was compressed, it was reduced from 256K to 194K — for a 24 percent savings.

✓ And when just one document the size of this column was compressed, it went from 5.5K to 3.2K — a whopping 42 percent reduction.

The ramifications of these results could be far-reaching, depending on your situation. For example, if you regularly send files by telephone to remote locations (like I send this column to several newspapers around the country), you can send the reduced-sized file. Then, after it is received, the recipient could use ARC

to expand it to its original size. A lot of telephone transmission time and *personal involvement time* would be saved.

The extra effort to compress and uncompress a file the size of this column takes less than 10 seconds, and the telephone transmission time (at a standard speed of 30 characters per second) goes from almost four minutes to about two minutes. It's easy to see how greater savings would be possible if larger files were transmitted regularly.

Other space-saving benefits

There also are potential benefits in situations where you are running out of room on your hard disk, and you want to delay the expense of purchasing a larger one. By using ARC to compress your files or programs, as much as three Megabytes (3,000K) could be freed on a 10MB hard disk. For some people, that's enough room to delay the upgrade for a full year!

However, there is a disadvantage. Time must be taken to use ARC to uncompress the programs or files you wish to use before using them, and this could take a few minutes each time. Loading my 256K word processing program, Word Perfect, from the compressed version took one minute and thirty-four seconds, versus only two seconds normally. This is not too high a price to pay, however, if you only load the program once or twice a day, and you do not bounce back and forth between programs while you're doing your work.

If you want to "off-load" many files from your hard-disk to floppy disks, ARC will also allow you to compress them in the process. Done in this way, you might save 30 percent to 50 percent in floppy-disk costs.

So, as I said at the start, the program's potential value for you depends on your own situation.

Not distributed through dealers

Unlike most programs for personal computers, ARC is *NOT* available through your local computer dealer nor through mail-order companies. However, it can be obtained directly from the programmers, System Enhancement Associates, 21 New Street, Wayne, N.J. 07470, for the bargain price of \$50.

They are using a distribution concept called "shareware" that is popular among some programmers. After you get a copy, you're encouraged to give it to others! The documentation asks new users to simply send a "contribution" of \$50 to the programmers if they use it. And once paid, the new user receives updates and new documentation as it is released.

Why send in payment? Simple — when you run the program, the following statement appears on your screen: "If you fail to send in \$50, your conscience will haunt you for the rest of your life." In fact, if you use the program regularly without paying, you'll feel awful!

ADVICE: ARC is an exceptionally useful program for transmitting files by telephone and saving space on a hard disk. It's easy to use and the price is right. Since it might save you hundreds or thousands of dollars on telephone transmission costs or hard-disk savings, it's better to support the programmers than have your conscience haunt you.

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